

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method in a logically partitioned data processing system, the method comprising:

receiving a packet in a host channel adapter for a system area network, wherein the host channel adapter is shared among a plurality of logical partitions within the logically partitioned data processing system, and wherein each logical partition within the plurality of logical partitions includes a logical host channel adapter having a logical port;

checking a multicast table in the host channel adapter to determine if a matching entry exists, wherein the multicast table contains information on multicast groups to which logical ports of logical host channel adapters belong; and

forwarding the packet to trusted software in response to a determination that the packet is intended for multicasting and that no matching entry exists in the multicast table, wherein the trusted software forwards the packet to one or more appropriate recipient logical partitions within the plurality of logical partitions.

2. (Original) The method of claim 1, wherein at least one protocol checking operation of the host channel adapter is bypassed for the purpose of forwarding the packet to the trusted software.

3. (Original) The method of claim 2, wherein the trusted software completes the at least one protocol checking operation on the forwarded packet.

4. (Original) The method of claim 3, wherein the at least one protocol checking operation includes at least one of queue key (Q_key) checking and partition key (P_key) checking.

5. (Original) The method of claim 1, wherein the trusted software includes at least one of a hypervisor and an operating system.

6. (Original) The method of claim 1, wherein the packet is received by the host channel adapter from a system area network fabric.

7. (Original) The method of claim 1, wherein the packet is received by the host channel adapter from an application on a host associated with the host channel adapter and the packet is received by the host channel adapter for the purpose of transmitting the packet over the system area network.

8. (Currently Amended) The method of claim 7, wherein in response to the host channel adapter's receiving the packet [[with a]] and in response to an associated Force Out [[data]] bit in a work queue element being set to a first value, the host channel adapter attempts to transmit the packet to local logical host channel adapters, and in response to the channel adapter's receiving the packet [[with]] and in response to the associated Force Out [[data]] bit in the work queue element being set to a second value that is distinct from the first value, the host channel adapter transmits the packet over a system area network fabric.

9. (Currently Amended) A computer program product in a computer-readable medium comprising functional descriptive material that, when executed by a computer, causes the computer to perform actions that include:

receiving a packet in a host channel adapter for a system area network, wherein the host channel adapter is shared among a plurality of logical partitions within a logically partitioned data processing system, and wherein each logical partition within the plurality of logical partitions includes a logical host channel adapter having a logical port;

checking a multicast table in the host channel adapter to determine if a matching entry exists, wherein the multicast table contains information on multicast groups to which logical ports of logical host channel adapters belong; and

forwarding the packet to trusted software in response to a determination that the packet is intended for multicasting and that no matching entry exists in the multicast table, wherein the trusted software forwards the packet to one or more appropriate recipient logical partitions within the plurality of logical partitions.

10. (Original) The computer program product of claim 9, wherein at least one protocol checking operation of the host channel adapter is bypassed for the purpose of forwarding the packet to the trusted software.

11. (Original) The computer program product of claim 10, wherein the trusted software completes the at least one protocol checking operation on the forwarded packet.

12. (Original) The computer program product of claim 11, wherein the at least one protocol checking operation includes at least one of queue key (Q_key) checking and partition key (P_key) checking.

13. (Original) The computer program product of claim 9, wherein the trusted software includes at least one of a hypervisor and an operating system.

14. (Original) The computer program product of claim 9, wherein the packet is received by the host channel adapter from a system area network fabric.

15. (Original) The computer program product of claim 9, wherein the packet is received by the host channel adapter from an application on a host associated with the host channel adapter and the packet is received by the host channel adapter for the purpose of transmitting the packet over the system area network.

16. (Currently Amended) The computer program product of claim 15, wherein in response to the host channel adapter's receiving the packet [[with a]] and in response to an associated Force Out [[data]] bit in a work queue element being set to a first value, the host channel adapter attempts to transmit the packet to local logical host channel adapters, and in response to the channel adapter's receiving the packet [[with]] and in response to the associated Force Out [[data]] bit in the work queue element being set to a second value that is distinct from the first value, the host channel adapter transmits the packet over a system area network fabric.

17. (Currently Amended) A data processing system comprising:

receiving means for receiving a packet in a host channel adapter for a system area network, wherein the host channel adapter is shared among a plurality of logical partitions within a logically partitioned data processing system, and wherein each logical partition within the plurality of logical partitions includes a logical host channel adapter having a logical port;

checking means for checking a multicast table in the host channel adapter to determine if a matching entry exists, wherein the multicast table contains information on multicast groups to which logical ports of logical host channel adapters belong; and

forwarding means for forwarding the packet to trusted software in response to a determination that the packet is intended for multicasting and that no matching entry exists in the multicast table, wherein the trusted software forwards the packet to one or more appropriate recipient logical partitions within the plurality of logical partitions.

18. (Original) The data processing system of claim 17, wherein at least one protocol checking operation of the host channel adapter is bypassed for the purpose of forwarding the packet to the trusted software.
19. (Original) The data processing system of claim 18, wherein the trusted software completes the at least one protocol checking operation on the forwarded packet.
20. (Original) The data processing system of claim 19, wherein the at least one protocol checking operation includes at least one of queue key (Q_key) checking and partition key (P_key) checking.
21. (Original) The data processing system of claim 17, wherein the trusted software includes at least one of a hypervisor and an operating system.
22. (Original) The data processing system of claim 17, wherein the packet is received by the host channel adapter from a system area network fabric.
23. (Original) The data processing system of claim 17, wherein the packet is received by the host channel adapter from an application on a host associated with the host channel adapter and the packet is received by the host channel adapter for the purpose of transmitting the packet over the system area network.
24. (Currently Amended) The data processing system of claim 23, wherein in response to the host channel adapter's receiving the packet [[with a]] ~~and in response to an associated~~ Force Out ~~[[data]] bit in a work queue~~ element ~~being~~ set to a first value, the host channel adapter attempts to transmit the packet to local logical host channel adapters, and in response to the channel adapter's receiving the packet [[with]] ~~and in response to the associated~~ Force Out ~~[[data]] bit in the work queue~~ element ~~being~~ set to a second value that is distinct from the first value, the host channel adapter transmits the packet over a system area network fabric.